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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,448	02/22/2007	Anderzej Loreth	1507-1036	1896
<small>465</small> YOUNG & THOMPSON 209 Madison Street Suite 500 ALEXANDRIA, VA 22314			<small>7590</small> EXAMINER CHIESA, RICHARD L	
			ART UNIT 1797	PAPER NUMBER
			MAIL DATE 07/24/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/575,448

**Applicant(s)**

LORETH, ANDRZEJ

**Examiner**

Richard L. Chiesa

**Art Unit**

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 April 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-14 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 12 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/ISAC)  
Paper No(s)/Mail Date April 12, 2006  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. The preliminary amendment filed on April 12, 2006 has been entered.

### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

3. The drawings filed on April 12, 2006 are accepted by the examiner.

### ***Specification***

4. The disclosure is objected to because of the following informalities: (A) The first sentence on page 2 appears to be grammatically incorrect. Apparently, a word or phrase has been omitted. (B) The specific reference to claim 1 on line 19 of page 3 is improper. The phrase "claim 1" should apparently be changed to --claim-- or --claims--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 9 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "e.g." on the third line of claims 9 and 10 renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

#### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-5, 8, and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,978,372 to Pick in view of U.S. Patent No. 6,117,216 to Loreth. Pick (note Figures 1-10) show an air cleaning apparatus with a plurality of electrode elements 2, 3, cover or frame 1, and an air permeable V-shaped fiberglass filter element 4 which spaces the electrode elements 2 and 3 apart (note col. 3, line 20 to col. 5, line 12) substantially as claimed. It would appear that Pick may not explicitly state that filter element 4 is electrically insulating. It is noted, however, that Pick does state the filter elements are made of dielectric material which certainly indicates electrical insulation. In any case, Loreth (note Figure 1) teaches the well-known use of longitudinally extending electrically insulating spacers D between high resistive electrode

elements R, A (note col. 2, lines 24-46, and col. 3, lines 42-60) in an air cleaning device for the purpose of ensuring maximum capture of aerosol particles in a simple inexpensive manner (note col. 5, lines 19-36). Consequently, it would have been readily obvious to one of ordinary skill in the art to employ electrically insulating spacers between the electrodes of the Pick air cleaning apparatus in order to facilitate efficient cost effective capture of aerosol particles as taught by Loreth.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 1 in paragraph 8 above, and further in view of U.S. Patent No. 5,993,521 to Loreth et al. The prior art, as applied above in paragraph 8, discloses an air cleaning apparatus substantially as claimed with the possible exception of foamed plastic spacers. However, Loreth et al (note ref. characters 26B, 27B, Figure 3, and col. 9, lines 1-29) teach the use of foamed plastic spacers in an air cleaning apparatus for the purpose of ensuring both excellent electrical insulation and unit stability. It therefore would have been obvious to one having ordinary skill in the art to employ foamed plastic spacers between the electrode elements of the prior art air cleaning device in order to enhance electrical insulation and unit stability as taught by Loreth et al.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 1 in paragraph 8 above, and further in view of U.S. Patent No. 6,090,189 to Wikstrom et al. The prior art, as described above in paragraph 8, discloses an air cleaning device substantially as claimed with the apparent exception of an electrode gap of 3-30 mm. In any

case, Wikstrom et al (note col. 3, lines 50-55) teach the use of an electrode gap of 3-30 mm in an air cleaning apparatus for the purpose of ensuring optimum capture of particles. It would have been obvious to one having ordinary skill in the art to employ an electrode gap of 3-30 mm in the prior art air cleaning device in order to facilitate an efficient capture of particles as taught by Wikstrom et al.

11. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 1 in paragraph 8 above, and further in view of U.S. Patent No. 4,662,903 to Yanagawa. The prior art, as described above in paragraph 8, discloses an air cleaning apparatus having aluminum electrode elements substantially as claimed with the possible exception of a highly heat resistive spacer. However, Yanagawa (note col. 6, lines 55-64) teaches the use of a ceramic spacer between electrodes of an air cleaning device for the purpose of enhancing performance in a high temperature environment (note col. 8, lines 10-12). It would have been obvious to one having ordinary skill in the art to employ a highly heat resistive spacer between the electrode elements of the prior art air cleaning apparatus in order to facilitate operation under high temperature conditions as taught by Yanagawa.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These references have been cited as art of interest to show other electrostatic air cleaning systems.

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard L. Chiesa whose telephone number is (571) 272-1154.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane S. Smith, can be reached at (571) 272-1166.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 1700 receptionist whose telephone number is (571) 272-1700.

Facsimile correspondence must be transmitted through (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richard L. Chiesa  
July 21, 2008

**/Richard L. Chiesa/  
Primary Examiner  
Art Unit 1797**